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Amendment
Attorney Docket No. S63.2B-11023-US01

Amendments To The Specification:

Please amend the paragraph beginning at page 6, line 18 as indicated:

Fig. 3 schematically illustrates generally at 20, an embodiment of ~~[[a]]~~ an intraluminal medical device loading assembly or introducer assembly in accordance with the present application in which an actuation ~~plug~~ hub 5 of a crimping device which may be any crimping device, is shown matingly engaged with the loading assembly 20 using a plug 10 as shown in Fig. 2. Stent 25 is shown partially within the aperture 48 of a crimping device ~~14~~ 10 ~~(not shown in Fig. 3)~~ and between crimping blades 22.

Please amend the paragraph beginning at page 6, line 24 as indicated:

A pushing quill 24 is behind stent 25 and moving stent into introducer shaft 26 of stent loading assembly 20. Within introducer shaft 26 is what may be referred to as a stent introducer plug 28. Pushing quill 24 may be actuated pneumatically or mechanically. Stent introducer plug 28 is shown with a tapering lumen. As can be seen from Fig. 3, the diameter of the opening of the introducer plug 28 is slightly larger than the diameter of the aperture 48 of the crimping apparatus ~~[[10]]~~ 14. The diameter of the opening of the introducer plug 28 adjacent the catheter shaft 35 is slightly larger than the diameter of the opening of the catheter shaft 35. Catheter shaft 35 is shown having a flared end 34. The flared tip may be trimmed off after the stent has been loaded and the crimping/loading procedure is complete. Stent introducer plug 28 is shown in this embodiment with flanged ends 36 which are constructed and arranged in this embodiment to easily engage the flared end of the outer catheter shaft 35. However, stent introducer plug 28 as well as the distal end 34 of catheter shaft 35 may also be provided without the flare and may, for example, be configured with a flat edge as well.

Please amend the paragraph beginning at page 7, line 5 as indicated:

Having a tapered introducer plug 28 as such, allows for the diameter of the intraluminal medical device 32 to be decreased more prior to loading into the shaft of the catheter delivery assembly. Furthermore, the internal taper of the bore extending through introducer plug 28 may be designed such that the bore is slightly larger in diameter than the aperture 48 of a

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crimping apparatus ~~[[10]]~~ 14 at the end of the bore closest to the crimping apparatus, which is explained in more detail below, and is slightly smaller in diameter than the diameter of the distal end of the outer catheter shaft of the catheter delivery assembly.

Please amend the paragraph beginning at page 7, line 18 as indicated:

The length of the introducer plug 28 can be advantageously controlled to be about the same as or just slightly less than the length of a stent strut. During at least one portion of stent loading ~~crimping~~, one strut is in the introducer plug 28, one strut is in the chamber 48 and one strut is in the catheter 35. Having most all of the entire distance from one strut to the next in the introducer plug 28 facilitates reduction such that it is easier to introduce the next strut into the catheter shaft. Having the length of the tapered introducer plug 28 to be slightly less than a stent strut also allows forced transference of the stent from the aperture 48 of a crimping apparatus ~~[[10]]~~ 14, into the introducer plug 28, without snagging a strut, and allows for the stent to have a slightly reduced outside diameter at the strut ends during entrance into the outer catheter shaft 35. The length of the introducer plug 28 is suitably about 0.001 inch to 1 inch (about 0.025 mm to about 25.4 mm), and more suitably about 0.025 inches to about 0.075 inches (about 0.635 mm to about 1.905 mm). In one embodiment, the length of the introducer plug is 0.050 inches (about 1.270 mm).

Please amend the paragraph beginning at page 7, line 31 as indicated:

Many stents are formed having a node/strut structure. Having a stent introducer plug with a length less than one strut or less than the distance between nodes, as described above, can be advantageous in that the change in diameter is affected more in the nodes of a stent structure, than in the struts. For stents formed from shape memory alloys such as the nickel-titanium, i.e. nitinol, alloys, this may allow for the martensitic state to be introduced into each node specifically, resulting in a lower deployment force. In the martensitic state, the radial and frictional forces of the nitinol type of stents are reduced while in the austenitic state the radial and frictional forces are higher. When nitinol stents are stressed, they go into the martensitic state. They may be ~~stresses~~ stressed either by cooling, or by stress, or both.

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Please amend the paragraph beginning at page 8, line 13 as indicated:

The shaft 26 may be attached to a horizontally mounted hollow rod pneumatic cylinder 42. If employed in combination with a crimping system as described above, when the aperture 48 of the crimping apparatus 14 is open, the shaft 26 moves into the aperture 48 of the crimping apparatus 14. A stop (not shown) may be placed in the aperture that halts the travel of the intraluminal medical device or stent 25 within the aperture 48 and stops the stent from proceeding too far through the aperture. Once the stent is in the aperture 48 of the crimping apparatus ~~{{10}}~~ 14, the stop is desirably removed. During crimping, the intraluminal medical device typically elongates along its axis as the diameter is reduced. If the stent is not allowed to elongate, the reduction in the diameter will not be uniform. Thus, the stop is removed. This may also prevent catching of the stent between the introducer plug 28 and the blades 22.

Please amend the paragraph beginning at page 8, line 24 as indicated:

A forced air system designed to either heat or to chill the stent, for example, cryogenically, can also be used to transfer the stent through the system. The stent may be moved into the aperture 48 of the crimping, loading apparatus indicated generally at ~~{{10}}~~ 14, 20 using a forced air system where it is transferred through a tube or some such structure. Forced air, rather than using a pushing device, will reduce the potential of damaging the stent by pushing it into the aperture 48 with an object. Using a triangular shaped introducer shaft as shown in Fig. 2, offers benefits when using such forced air. The triangular shaped introducer shaft 26 is shown within a circular lumen 27 of the introducer assembly 10 in Fig. 2. This configuration allows for air flow around the entire introducer shaft, thus providing better, more uniform heating and cooling of the entire shaft, and consequently better heating and cooling of the stent within the shaft.

Please amend the paragraph beginning at page 9, line 4 as indicated:

The stent may be placed in a loading chamber assembly ~~{{52}}~~ 50 shown in Fig. 4 and released from the loading chamber using a stent pin. The stent is then moved from the loading chamber assembly ~~{{52}}~~ 50, through the transition tube 52 and into the aperture 48 of

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the crimping/loading apparatus ~~10~~ 14 and from there into a catheter tube 35. Forced air may be employed to move the stent from the loading chamber 50, through the transition tube 52 and into the aperture 48.

Please amend the paragraph beginning at page 9, line 17 as indicated:

Desirably, the transition tube 52 through which the stent is moved from the loading chamber to the aperture 48 of the crimping apparatus is "s" shaped. This allows the pushing quill 24 to be aligned with the aperture of the crimping device such that the pushing quill 24 and the transition tube 52 do not interfere with one another. Pushing quill 24 may be actuated pneumatically or mechanically and is shown connected to an actuation device 54. The pushing quill 24 is employed to move the stent from the aperture of the crimping device and into the catheter shaft 35 once the diameter size of the stent has been reduced and crimping is thus complete. The pushing quill 24 is then retracted and another stent moved into the aperture 48 of the crimping apparatus ~~10~~ 14. The next stent may then be placed in the loading chamber 50.